

CLAIMS

What is claimed is:

1. A medical wireless capsule-type endoscope system, comprising a wireless endoscope capsule (A) and a portable image recording device (B), the wireless endoscope capsule having a housing (12), an optical front cover (2) connected to the housing, an LED array (3) arranged within the housing in sequence, a lens (4) and a power switch module (8), characterized in that, the capsule further includes an image sensor (5), a microprocessor (6) for transforming the image information into a compressed JPEG format, an RF transceiver module (9) and a transmit/receive antenna (10), wherein the signal output of the image sensor is connected with the I/O port of the microprocessor, the image information received is transformed into the compressed JPEG format by the microprocessor and then sent to the data receiving terminal of the RF transceiver module, the information is sent to the portable image recording device via the antenna by the RF transceiver module after the control commands received from the image recording device by the antenna are sent by the RF transceiver module to the microprocessor for processing, the control terminals for the operating modes of the LED array, the image sensor and the RF transceiver module are controlled by the I/O ports of the microprocessor; the portable image recording device (B) includes a transmit/receive antenna array (F), an RF transceiver module (13), a microprocessor (14) and a storage unit (15) connected with the bus thereof, wherein the RF transceiver module communicates the information received from the capsule by the antenna to the microprocessor (14) by the bus or sends the information from the control terminals of the microprocessor to the capsule (A) by the antenna (F).

2. The medical wireless capsule-type endoscope system as claimed in Claim 1, characterized in that, a temperature sensor (11A) and/or a pressure sensor (11B) are mounted within the capsule housing, wherein the pressure sensor (11B) is closely mounted on the inner wall of the housing (12), and the outputs of the temperature sensor (11A) and the pressure sensor (11B) are connected to the I/O ports of the microprocessor (6).

3. The medical wireless capsule-type endoscope system as claimed in Claim 1, characterized in that, the system further includes a wireless terminal connected with the computerized medical image workstation (E); the information from the control terminals of the microprocessor of the portable image recording device is sent to the wireless terminal of the computerized medical image workstation by the RF transceiver module (13) of the portable image recording device (B); and/or the information received from the wireless terminal of the computerized medical image

workstation by the antenna array is sent by the wireless transceiver module (13) of the portable image recording device (B) to the microprocessor by the bus for processing, and then sent to the capsule.

4. The medical wireless capsule-type endoscope system as claimed in Claim 3, characterized
5 in that, the wireless terminal connected with the computerized medical image workstation (E) is a wireless terminal with USB ports (G) or a GPRS terminal (H), and the GPRS terminal wirelessly exchanges information with the wireless terminal with USB ports connected with the computerized medical image workstation.

5. The medical wireless capsule-type endoscope system as claimed in Claim 1 or 3,
10 characterized in that, said system further includes a storage medium reader (D) wiredly connected with the computerized medical image workstation (E) and a storage medium (C), and the storage medium (C) is connected with the microprocessor (14) of the portable image recording device (B) through the socket by the bus.

6. The medical wireless capsule-type endoscope system as claimed in Claim 1, characterized
15 in that, the magnetically controlled switch (S1) of the magnetic switch module (8) is switched on in the magnetic field, and after the magnet is removed, it is switched off.